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ECONET WIRELESS ZIMBABWE LIMITED: BUILDING THE FUTURE

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ABSTRACT

In February 2015, when Econet Wireless Zimbabwe Limited, EWZL, the market leader of the telecommunications sector in Zimbabwe, published the financial results, the management team was worried about the shareholders' reaction. With over 60% market share in its core business (the voice and SMS market), it has achieved remarkable results due to the great diversification strategy. However, the share price was continuously falling due to exogenous factors that were pressuring margins and threatening future sustainability of the company. EWZL was highly exposed to Zimbabwe's specific risks and regulatory policies.

This case explores both the business environment surrounding the company and the strategic decisions necessary to fight against the economic and political challenges. Students will step into Econet's obstacles by analyzing the strategies and diagnosing the multiple risk factors affecting the profitability of the firm. Furthermore, they will have to compute the valuation of the firm, facing several challenges of a developing country.

Keywords:

Telecommunications, Zimbabwe, Country Risk, Mobile Money, Valuation

ECONET WIRELESS ZIMBABWE: "BUILDING THE FUTURE"

Overview

On March 2015, Dr. James Myers, chairman of the board of Econet Wireless Zimbabwe, the market leader of telecommunications services in Zimbabwe, had a lot on his mind. It was the day of the board of directors' annual meeting, composed by Dr. James Myers, the Chairman of the board of directors and independent non-executive director, Mr. Strive Masiyiwa, the Group Chairman, Mr. Douglas Mboweni, the CEO, Mr. Krison Chirairo, the Finance Director, and six non-executive directors (**Exhibit 1**). The meeting's goal was to decide the future of the company and he had no clue about the outcome. They first needed to choose a new strategy for the following years and then focus on the sustainability of the business ecosystem they were naturally developing.

Since its foundation in July 1998, Econet Wireless Zimbabwe has proven to be successful, with a great diversification strategy and an efficient innovation structure. As it became the largest player in the industry, and as the nature of the telecom industry requires, Dr. James Myers established a strong ability to anticipate both technological and economic changes. However, the economic conditions, risk exposure and regulatory environment were highly unfavorable, as they were destroying margins within the sector. At the end of the fiscal year 2015[1], with sales reaching USD 750 million and profits over USD 70 million, the market price of Econet was too low, not reflecting, in his opinion, the large potential of the firm. The only reason why Econet's chairman could still sleep at night was the fact that the company has recently introduced the promising area of financial services, branded EcoCash, to complement the company's offer to clients.

[1] 28th February 2015

After the later announcements from the Postal and Telecommunications Regulatory Authority of Zimbabwe (Potraz)[2] and the government, no one could predict the future of telecoms. Average Revenues per User (ARPU) were expected to fall continuously until 2020 as the economic conditions in Zimbabwe represent a threat to the future of the large players in the sector. The threats of increasing unemployment and decreasing disposable income could move consumers from the high quality services to low cost operators.

All these challenges have been forcing Econet Wireless to redesign its strategy and reposition itself in the market. "How should I keep developing an ecosystem to sustainably lead the market? How will I position Econet in order to minimize the damages caused by the latest regulatory, economic and political challenges? How can I accurately measure the risks the company is exposed to? Should financial services become our new main focus?" As he was walking through the Board room, Dr. Myers tried to find answers to all these questions.

Background: The Republic of Zimbabwe

When people in developed countries talk about Zimbabwe, most think about hyperinflation, wild animals and individuals speaking strange dialects. The story, however, is far more profound than that. Despite the gigantic poverty rates, Zimbabwe is among the first countries in the world when considering literacy rankings (**Exhibit 2**). According to UNESCO, the country's literacy rate reached 98% in 2014. For this reason, it is a country with high potential for sustained growth and poverty reduction, as not only does it have skilled human resources, but it also benefits from a great basis of natural resources and a generous stock of public infrastructure.

In 1965, the Republic of Rhodesia was declared independent from the British Crown by Mr. Ian Smith, who became the Prime Minister. He issued a unilateral declaration of

[2] Potraz is the regulator of the telecommunications sector in Zimbabwe since March 2001.

independence, with the purpose of protecting the country from the black majority rule[3] and maintaining the privileges of the white colonial elite. From that moment on, he ruled the territory as an independent country, triggering violence between the militant black nationalists and the white Rhodesians. After many years of civil unrest, black independence was declared in 1980, under the presidency of Mr. Robert Mugabe, a nationalist leader. The country then changed identity to Republic of Zimbabwe. Unfortunately, since that time, Zimbabwe has gone through numerous periods of economic and political instability. Between 1997 and 2011 GDP fell sharply, the country suffered from hyperinflation, poverty went above 72% and basic services - including health care, water supply and the investment climate - were severely affected.

The first official currency in Zimbabwe was the Zimbabwean Dollar, which was highly unstable due to poor monetary policy. The political chaos and hyperinflation forced the Reserve Bank of Zimbabwe to make three massive redenominations in order to reduce the high face value of the banknotes. However, in 2008 when a Z$100 trillion dollar banknote (**Exhibit 3**) was printed, the country was forced to abandon its own currency, introducing a multi-currency regime where several foreign currencies freely circulated[4]. This multi-currency regime dominated by the U.S. Dollar stopped hyperinflation, helped the economy recover and allowed for fiscal discipline and transparency of prices. However, it also created new challenges. Although there were five official foreign currencies, the dollar was clearly preferred, leading many companies to face a large exposure to the U.S. Dollar/Rand exchange rate, since South Africa was the country from where most of the capital inflows came from. Additionally, the loss of national currency brought about the possibility of erosion of sovereignty and monetary independence.

[3] No Independence before majority rule: policy adopted by the UK before declaring Independence to a colony. The purpose was to avoid white colonial minority and to fight against black racism in the African colonies.
[4] Such as the South African Rand, the Botswana Pula, the British Pound, the Euro and the US Dollar

From 2009 onwards, the country experienced a dramatic economic slowdown, due to the inability to meet the requirements of the dollarization and to political instability. Devaluation was no longer an option to help local firms compete with international players, leading the latter to face huge difficulties in maintaining international competitiveness. The environment was marked by government poor governance and a terrible investment climate.

In the agricultural sector the government cut subsidies, which created barriers in the private production. The country's net exports of maize, cotton, beef, tobacco and roses were replaced by net exports of tens of thousands of educated professionals who kept on leaving Zimbabwe, looking for better economic and life conditions.

According to the IMF, real GDP growth rates have been growing at a slow pace (4.5%, 3.2% and 2.8% in 2013, 2014 and projections for 2015, respectively). Additionally, Zimbabwe was, in February 2015, in a period of deflation, as opposed to the hyperinflation experienced in the previous period. Average annual inflation rate in 2004-2008 was 39.9% while in 2014 it was already -0.2% **(Exhibit 4).** Unfortunately, consequences of this deflation became quickly evident: liquidity constraints arose, companies started to fail and there was a general fall in consumer demand.

Last but not least, disposable income was falling and there was a massive wave of job losses. According to BPI Capital Africa[5], "*Altogether 4,610 companies have failed since 2011, leaving 55,443 people unemployed*". There is clear evidence of consumer weakness on declining traffic volumes in Zimbabwe and the prospects for the near future do not show any signal of recovery. According to the IMF's forecasts, real GDP is expected to grow 2.37% in 2016, 2.99% in 2017, 3.33% in 2018 and 3.36% in 2019. The economy is still highly exposed to several risk factors from politics to regulatory levels.

[5] Turner-Smith, Kate. 2015. "Silver Linings and Falling Knives". BPI Capital Africa.

Realizing the potential of the country is the first step for renewing the institutional and operational capacity, modernizing economic policies and improving the basic services. Therefore, as the pioneer of indigenous empowerment, Zimbabwe should benefit from international aid (IMF and World Bank programs) to promote growth and boost both productivity and efficiency.

Country Risks

Zimbabwe's country risk is extremely high due to the political instability and economic turmoil. Moreover, it has been displaying low growth, deflationary pressures, critical external debt and social risk factors caused by high poverty levels and precarious food and health situations.

Zimbabwe's current account has been in deficit for more than a decade due to lack of investment in key export sectors. Foreign investment flows are low, the country's infrastructure is still inadequate and the business climate could not be worse. There was a general fall in production, leading to an increase of the external sector deficit. Moreover, the global prices of commodities, the international terms of trade and the volume of investment, which are critical to the performance of the mining and manufacturing sectors, have been experiencing a downturn, thus contributing to the low growth of Zimbabwe's GDP.

The banking sector has also been negatively affecting the economy. Mistrust in the banking system is prevalent, as people have been closing their bank accounts. Corruption is a deep problem that investors have to consider when entering Zimbabwe, as there is considerable risk of expropriation and nationalization of private businesses. The monetary and fiscal institutions have low credibility due to the long history of poor governance and weak macroeconomic management. Furthermore, as the multi-currency regime is only temporary, the economic environment is marked by high uncertainty about the monetary policy: no one knows whether

Zimbabwe will keep the U.S. Dollar as the preferred foreign currency, change to the Rand or even go back to the Zimbabwe Dollar. In each of the three different scenarios, the consequences will be clearly different.

There is no credit rating for Zimbabwe's Government debt issued in dollars. Therefore, accounting for the country's sovereign default risk is not straightforward. According to Aswath Damodaran in *"Country Risk: Determinants, Measures and Implications – The 2015 Edition"*[6], Zimbabwe's country risk is grouped with Mozambique, Nigeria, Uganda, Egypt, Democratic Republic of Congo, etc. **(Exhibit 5)**. The risk is calculated using various political, economic and financial variables, such as the Corruption Index, Peace Index[7], Commodity Dependence and net Debt as a % of GDP. In the absence of a formal credit rating for Zimbabwe, it can be inferred by using a proxy (**Exhibit 6**).

The Evolution of the Telecommunications Sector in Zimbabwe

Since the beginning of the 21st century, telecoms have been in a deep restructuring process. Business models were redeveloped and telecom firms became the center of large ecosystems with diversified products and services, including mobile phones, fixed lines, internet, broadband and even a new form of payment: mobile money.

In Zimbabwe, there are three main players in the mobile phone market: Econet, Telecel and NetOne. Each of them has been strongly investing in network upgrades to support data services and develop mobile commerce and mobile banking. The main player is Econet, which had, in the end of the fiscal year 2015, a 55.8% market share of subscribers and over 72% market share of revenues (**Exhibit 7)**. Econet had 6,619 million active subscribers while Telecel

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[6] The model used was the Political Risk Services, which provides numerical measures for country risk for more than a hundred countries, after regressing 22 variables in the political, economic and financial dimensions.
[7] Damoradan's corruption index is computed using (lower scores indicate more corruption). As for the Global Peace Index, it is computed according to 23 qualitative surveys of experts living in the various countries and lists the countries from the most to the least corrupt and quantitative variables, measures the level of violence in a country (the higher the value, the lower the peace level within the country).

had 2,069 million and NetOne 3,171 million[8]. In the fixed line market, another operator – TelOne - holds a monopoly, offering local, regional and international voice telephone services.

An important feature of Zimbabwe's telecom sector is that deep regulation is putting downward pressure on margins and decreasing profitability. The Government has been increasing taxes on operational activities while the Telecommunications Regulatory Authority, Potraz, has been trying to promote growth and improve competitiveness, both by reinforcing regulation and optimizing the existing infrastructure. In 2014 the regulatory authority introduced an effective tower sharing among operators in order to maximize the utilization rate of the assets and decrease operational costs. In 2015, not only did the voice tariffs fall 8% per minute charged, but there was also an introduction of a 5% excise duty on all airtime sales. Additionally, the country's economic conditions are inducing a decline in the voice traffic and potential preference for cheaper services.

Despite the economic and regulatory conditions of the country, the telecommunications sector is very mature and competitive when compared to other Sub-Saharian countries. According to Potraz the mobile penetration rate[9] went from 2% in 2000 to 107% in 2014. Nevertheless, if one focus on the active sim cards in circulation, the penetration rate is only 89%. As for the internet markets the penetration rate only grew 3 percentage points in 2014, from 42% to 45%. This may indicate that revenues of all internet services still have a strong potential to grow as the subscriber base may become larger **(Exhibit 8)**.

Besides the regulatory challenges, telecom operators share concerns about a possible overhang of the data services (such as WhatsApp or Facebook). This situation is affecting the traditional revenue streams - voice or SMS communication – which are is the most profitable segments as well as the ones with the largest volume of trade. With the improvements in

[8] Source: Potraz
[9] Considering all sim cards in circulation.

technology and the general fall in the prices of smartphones telecoms were able to grow by developing new business areas. The contributions of the core businesses have been falling and there was a natural replacement for cheaper and better solutions (such as 3G mobile broadband and mobile money services). Even though this change in the consumption path brings some tax benefits (OTT[10] services do not pay taxes or have any obligations with the regulator) it can only offset half of the decline in voice revenue. Therefore, cannibalization by data services is also compressing margins and reducing the firms' ability to innovate and invest in the future generations of infrastructures and services.

Moreover, following the reduction in profitability most of the operators responded with cost-cutting measures aimed at reducing overhead expenses. Without restructuring, telecom operators in developing countries will face large difficulties due to the fall in both the ARPUs and subscriber growth in the mobile phone market.

Mobile Money: The Future of Finance?

According to GSMA[11], in 2014, 2.5 billion people in developing countries were unbanked and had to rely on unsafe, inconvenient and expensive informal financial services to make daily payments. However, 1 billion of these people had a mobile phone that could become the tool to include them in the financial system, through payments, transfers, insurance, savings or credit.

Mobile Money is a form of electronic money representing a powerful tool for creating an inclusive, stable and secure financial sector. For mobile network operators, it provides the opportunity to expand their products and services while utilizing the naturally extensive

[10] Over-the-top: delivery of data (messages, videos, audio, images or other media) over the internet as an alternative to the services provided by telecoms.
[11] Groupe Speciale Mobile Association – association of mobile companies representing the interests of the operators worldwide. Source: GSMA. 2014. "State of the Industry. Mobile Financial Services for the Unbanked".

existing infrastructures. Mobile money usage has been rapidly increasing in most of the African countries as the underlying context is appropriate for the development of such a product. In Zimbabwe, as at December 2014, mobile financial services already represented 44% of GDP.

In most of the developing countries the urbanization rates are low and the majority of the population does not have a bank account. Banks are focused on a niche of people who live in the urban areas and earn decent wages, as it is extremely difficult and highly costly for the banking system to expand to the rural areas.

According to GSMA in December 2014[12] the informal sector of the economy represented 26% of the GDP. During hyperinflation, unemployment rates rose sharply due to informal jobs paying more than formal ones. Additionally, 61% of the total population was living in rural areas, while mistrust in the financial sector was still prevalent: only 24% of the adult population had a bank account and 40% was financially excluded **(Exhibit 9)**.

Therefore, mobile money was seen as a solution for some of the economic problems of the country. On one hand, it would deal with the currency collapse and coin shortages in an easy way: digital systems eliminate the need to round up the payments due to "change problems". On the other hand, the service would function as the bridge between the formal and informal sectors of the economy, as it would allow for transactions between people in both sectors.

Econet Wireless Zimbabwe Limited

History

Econet Wireless Zimbabwe Limited is a holding company with various businesses involved in the telecommunications sector in Zimbabwe. It was founded in July 1998 by Mr. Strive Masiyiwa and listed in the Zimbabwe Stock Exchange in September of the same year. In

[12] Phil Levin. 2015. "Mobile Money for the Unbanked. Big ambition meets effective execution: How EcoCash is altering Zimbabwe's financial landscape". GSMA

February 2015[13], the company had a market cap of $860 million, and sustained over 35,000 jobs. Although it is listed on the Zimbabwe Stock Exchange (ZSE), almost 70% is owned by Econet Wireless Global Limited which owns a large number of international telecom companies (**Exhibit 10)**.

As the market leader of telecommunications services in Zimbabwe it has a diverse product portfolio and a strong brand that accelerates the growth of the subscriber base and guarantees the most extensive coverage in all the neighboring, including South Africa. Econet provides solutions in mobile and fixed telephones, public payphones, internet access and mobile payments. EWZL was the first Zimbabwean operator to launch both data services under 3G technology and mobile money.

With the purpose of investing for the future through the promotion of pioneering and sustaining innovation the company has been investing in mobile network since the dollarization of the economy. In the last 5 years EWZL has invested more than US $1.2 billion, being able to capture an additional 2 million users and enabling communications between 9 million customers on a day to day basis.

Econet has a great diversification strategy and a sustained and efficient innovation structure playing an important role in the local economy. However, it cannot escape the weak economic conditions and heavy tax burden in the country. Since 2009, Econet had paid over $1.15 billion in taxes, duties and levies[14]. Despite the general fall in the consumer demand for telecommunication services, at the end of the FY2015, Econet's market share of mobile subscribers represented 55.80% of the total subscriptions from which 97.76% were active consumers who used their services regularly[15]. The firm has been the major beneficiary of the increase in mobile penetration, maintaining more than 50% of the subscribers and revenue

[13] Source: Econet
[14] Tax rate as at February 2015: 25.75%
[15] Source: casewriter estimates

market share; however, it has also been hurt the most by the effective tower sharing among sector players, as it has strongly invested in infrastructure.

Econet's Business Units

Econet's core business is related to the voice and SMS market, broadband and overlay services. However, in accordance with the diversification strategy implemented by the company, financial services are growing and reverting the negative trend of the traditional services.

In 2011 Econet launched EcoCash, the first Zimbabwean mobile money service, and has been developing the service since then. EcoCash's business model was based on other mobile money services which revolutionized the telecommunications and finance sectors in all the African continent. The service has grown rapidly since its launch: according to Econet's reports its contribution to the Group's revenue has risen from 1% in 2013 to 8% in 2015. There are over 4.2 million subscribers and 23.4 thousand agents in the EcoCash's network, while 77% of all mobile money users in the country are EcoCash's subscribers.

Although EcoCash started as a mobile money service based on person-to-person money transfers, it rapidly evolved to a more fully formed mobile wallet service. It constitutes the ultimate example of rapid mobile money acceptance, as it already enables transfers between Econet customers, local and international payments of goods, services, bills, prepaid airtime, online payments, deposits, savings and access to loans and links to a bank account.

EcoCash has some unique characteristics. The most special and distinctive point of EcoCash is that its customers do not need to have a bank account, they can do all the transactions in any of the 23.4 thousand agents all over the country. It provides a flexible fee structure in which merchants can pay either a fixed monthly fee or a percentage of purchasing transactions. In 2015 the EcoCash's monthly ARPU was $0.09, representing a 68% growth from the previous period. Furthermore, the tendency is for ARPUs to keep growing fast. Additionally, Econet has a dedicated team whose function is to educate merchants who adopt the service; in general, it is simple, secure, convenient, quick and competitively priced.

Other key subsidiaries and associates of Econet are Liquid Telecom, the largest internet service and access provider in Zimbabwe, and Transaction Payment Solutions, a leading provider of financial transaction, switching, point-of-sale and value-added support services.

Company's Valuation

The past three years have seen variable financial results for the company (see **Exhibit 11 through 13**) and revenues have gradually declined. EBITDA closed the FY2015 at $285.6 million, compared to the previous $332.2 million and EPS fell by 55%, from $0.08 to $0.044. However, analysts have been recommending investors to buy Econet's stock arguing that the company has been undervalued relative to its peer group.

Despite the negative impacts of the dire economic situation and of the regulatory problems, results were not as negative as it was expected. Revenue for FY2015 was $746.2 million, representing a fall of less than 1%. One can expect airtime sales to keep falling in the next few years as opposed to the sales of financial services and data (see **Exhibit 14**). Low prices depressed Econet's profitability, to which the company responded with cost-cutting measures aimed at reducing overhead expenses. **Exhibit 15** shows the annual changes in operational expenses, as a percentage of sales.

Capex/Revenues have been continuously falling since 2012, reaching a minimum of 16% in the FY2015. Zimbabwe has large financing costs due to implied risks and lack of institutions willing to borrow. Econet uses its own financing vehicle to sustain its investments: its parent company, Econet Wireless Global Limited. As neither the firm nor the country has publicly traded debt outstanding, the cost of debt could be approximately by its interest expense. Econet has been in a debt repayment program, which intends to have most of the debt paid out until 2018[16]. In the end of FY2015, with $263,993,424 million in interest bearing debt, Econet had a debt-to-equity ratio[17] of 40%, which was 14% lower than in 2013. Econet's cash flows are expected to grow in the next few years as sales grow and debt exposure and capital commitments decrease.

As for the companies' betas, **Exhibit 16** shows the unlevered betas for the various industries, from which one can infer the company's.

The peers' average[18] P/E ratio for the 12 months following the date of this case was 13.71x, while Econet had the lowest value of 7.70x. In terms of EV/EBITDA, Econet is trading at 1.95x, well below the peers' average, 5.87x (see **Exhibit 17**).

Conclusion

After the release of the annual report, the management team was excited about the prospects presented by data and financial services' growth. However, the success of the firm in the financial markets is highly dependent on the economic events, as well as regulatory changes. Even though the business has a strong potential to grow, it is exposed to several undesirable risk factors. One of Mr. Myers concerns at this moment was to understand the sensitivity of the price to exogenous risk factors. What could be done to bring Econet's share trading multiples closer to its peers'?

[16] The company will use all the free cash flows to debt repayment rather than paying dividends.
[17] Book values
[18] Telkom, Vodacom, Safaricom, Sonatel and MTN Group

LEARNING OBJECTIVES

After reading and analyzing this case, students will be able to:

- Better understand and analyze specific risks of developing countries as well as the impact of regulation in a company's success;
- Understand the challenges of valuing a company in a developing country;
- Explore the impact of country risk on valuation;
- Develop their own valuation and observe the differences between the various methods.

ASSIGNMENT QUESTIONS

The following questions can be assigned to help students prepare for class discussion of the case:

1. What are the key value drivers of the business?
2. What are the main challenges faced by Econet?
3. How would you quantify the company and country's specific risks?
4. How would you obtain a discount rate for Econet's cash flows?
5. Compute Econet's valuation.
6. By looking at comparable firms, if you were a Portfolio Manager looking to invest in African telcos, would you buy Econet's shares?

CASE ANALYSIS

Introduction

The instructor can open the class with a description of the economics in Zimbabwe and the context for regulation of telecoms.

Econet Wireless Zimbabwe Limited was founded in 1998 and is the market leader of telecommunications services, providing solutions in mobile and fixed telephones, public payphones, internet access and payment solutions. It was the first Zimbabwean operator to launch data services under 3G technology and a mobile money service. With the most extensive coverage in the country, EWZL wants to reach all people in Zimbabwe by continuously searching for innovations to allow for social transformation. Econet's core businesses are the voice and SMS market, broadband and overlay services[19]. However, in accordance with the diversification strategy implemented by the company, Econet also offers financial services.

In the last few years the company has been trying to fight against the challenges brought by Zimbabwe's poor economics and increased regulation. Everyone knows Zimbabwe for its hyperinflation period, as well as for the banknotes of Z$100 trillion dollars. However, the country has been going through a period of deflation since 2014. In 2009 there was a dollarization process, in which the Zimbabwean dollar notes were replaced by foreign currencies, with preference for the U.S. Dollar. Since then, local companies lost competitiveness, unemployment has been rising while disposable income has been continuously falling. Zimbabwe is not rated by the top rating companies nor does it have sovereign debt issued in U.S. Dollars or any other foreign currency. It is a country with a huge lack of transparency, difficult access to any kind of economic or financial information, and various political problems that may destroy the business environment.

The telecommunications sector is regulated by the Postal and Telecommunications Regulatory Authority of Zimbabwe, Potraz, and the government. During 2014, Potraz introduced price ceilings in voice prices and an effective tower sharing among players. Furthermore, the government imposed extra taxes in all airtime transactions.

[19] Overlay services are services that run independently of the other business units, although supported by the same infrastructures.

Part I – Strategic decisions

1. What are the key value drivers of the business?

From the various business units of Econet, Data and EcoCash are the key growth drivers. In the FY2015, 17% of the group revenues came from data and SMS while financial services contributed with 12% of the total revenues, representing a significant growth when compared to the 14% and 5% contributions in the FY2014. Data is expected to keep its growth rate due to the proliferation of OTT apps and increased broadband usage. As for the financial services, the heavy investment made in the development of the business is boosting the potential growth rate and converting it the core business of the firm.

a) Data and Overlay Services

Innovation has been a key value driver of Econet. The firm has been launching specific products in order to capture some niche segments of the market. This strategy is adding value to the company and, in the future, this segment is seen as the preferred one, due to the recent developments in technology and the large potential to increase the customer base.

b) Mobile Money

Mobile money provides financial services to the unbanked. It uses the existing infrastructures of the telecom companies to deliver financial services to people with no access to traditional banks. In mobile money, mobile phones are used to complete financial transactions, such as transferring money and making payments. As a form of electronic money, it also allows the user to save some money and receive interests. Therefore, this service is a powerful tool for creating an inclusive, stable and secure financial sector, allowing developing countries to improve the banking system's efficiency while reducing poverty levels.

Traditional financial institutions cannot reach all humans in developing countries; low income customers cannot afford the annual charges of a bank account and banks don't have the necessary network nor infrastructures to offer their services in all rural areas. As rural population represents a large percentage of the potential customers, there is a clear market opportunity for mobile money. There is over 2.5 billion people with no access to financial services and the majority of those people live in developing countries. Furthermore, from the unbanked people, over 1 billion have access to mobile phones which can be the basis for mobile money services.

Econet identified the market opportunities in Zimbabwe, which would allow the mobile money service to address the needs of the customers. After the collapse of the local currency and the sustained period of hyperinflation, the traditional financial system was in a deep crisis as financial institutions were perceived as corrupt and unsafe. One of the consequences was the move to the informal sector. With the abandonment of the local currency, inflation stabilized but unemployment kept increasing and other challenges arose.

Telecommunication companies created strong brands and achieved high credibility in the market. They were the right players to launch mobile payments and link the informal and the formal economy. Additionally, introducing a digital payments' system would solve the "change problem" by allowing customers to pay the exact amount instead of rounding up the values.

With the continuous increase in unemployment in 2011, 84% of employed workers were in the informal economy. Furthermore, as the local currency was worthless, bank customers lost their money and blamed the financial institutions for their losses. In Zimbabwe, only 24% of the adults had a bank account and 38% used formal financial services. 40% of the total adult population was financially excluded and 22% used informal financial products and services.

Moreover, 12% of the people chose to terminate the bank account and 14% used non-bank financial services. With a market share of mobile subscribers of almost 60%, Econet had a strong customer base and could develop a larger financial system than the traditional one.

In October 2011, Econet Wireless Zimbabwe, launched EcoCash, a successful mobile money transfer service which is transforming its business. The service has grown rapidly since its launch and has already more than 4.2 million subscribers, a larger amount than that of bank accounts.

EcoCash started as a mobile money services based on person-to-person money transfers but rapidly evolved to a more complex mobile money service (cash-in, cash-out, P2P, bill payment, airtime top-up, merchant payment and bulk payment). The service is operated by Econet Services, an Econet Wireless subsidiary which has its own management, governance and resources. EcoCash has some unique characteristics. It provides a flexible fee structure in which merchants can pay either a fixed monthly fee or a percentage of purchasing transactions. Additionally, there is a dedicated team whose function is to educate merchants who adopt the service. In general, it is simple, secure, convenient, quick and competitively priced.

2. *What are the main challenges faced by Econet?*

The main challenge of Econet Wireless Zimbabwe Limited is the increasing pressure in margins, combined with the decline in voice traffic volumes, caused by several factors.

a) Economic environment

The company’s revenues have a great sensitivity to the country’s macroeconomic and political issues. Therefore, the economic environment is one of the main challenges Econet has to face. As consumers lose purchasing power, they prefer cheaper services and reduce the consumption on Econet’s.

b) Regulation

The regulatory changes, namely the reduction in voice tariffs and the introduction of a 5% excise duty on airtime sales resulted in a decrease in profitability margins. Since FY2010, Gross Profit margin has fallen almost 13%, from 80% in the FY2010 to 67% in the FY2015. These impositions are reducing the firm's ability to innovate and develop new services.

c) Cannibalization

The contribution of the airtime, interconnect and roaming sales have been continuously falling, reaching 49% and 15% in the FY2015, compared to the 60% and 22% in the FY2010, respectively. The final result was an 11.6% fall in the EBITDA margin from 49.9% in FY2010 to 38.3% in FY2015.

One of the reasons why the core business units seeing revenues down is that overlay and financial services are cheaper, more practical and efficient than the traditional voice and SMS. The main problem is that, even if these business units bring some tax advantages as OTT services do not need to pay taxes, voice and SMS is the most profitable segment. Airtime revenue per user was, on average, \$4.67 while data and SMS ARPU's was only \$1.99 in February 2015. This natural move in consumer demand requires a re-alignment of the cost structure in order to sustain the new margin levels. Although the management team has already prioritized cost optimization and started cutting costs, the impact will not be instantaneous. One of the biggest challenges in the near future will be to keep EBITDA margins constant.

Part II – Business environment

3. How would you quantify the company and country's specific risks?

Econet is exposed to the industry and the country's risks.

a) Country risks

Zimbabwe is a developing country with a controversial economy and politics. There are few established businesses and some industries are still underdeveloped. Additionally, as there is not a solid legal system, there is a large risk of expropriation or nationalization of private businesses.

Furthermore, there is a high dependence on the U.S. Dollar/Rand exchange rate and on the commodity prices. The current account has been in deficit for more than a decade, reaching -23% of GDP in July 2015, due to the lack of investment in key export sectors, as exports of goods have been replaced by exports of people (i.e. emigration).

In Zimbabwe, political risk is particularly relevant. The country is under a *de facto* dictatorship, where the political power cannot be transferred easily to other parties. Mr. Robert Mugabe is in the presidency for more than 20 years, and no one knows how long he will keep the position, who will be the successor and how peacefully such transition may happen. All this, aligned with the low credibility of the national institutions, may represent a relevant risk for potential foreign investors. The country is known for its long history of poor governance and corruption, which ended up in inefficient policies. According to Damodaran's paper, Zimbabwe is the 21st more corrupt country, and the 125th when considering violence.

b) Industry Risks

Econet is exposed to different industries as it operates in different segments of the Telecom market. Although the firm operates in the traditional telecommunications services sector, wireless and equipment, the financial services are part of the banking sector.

4. *How would you obtain a discount rate for Econet's cash flows?*

a) Cost of Equity

In order to calculate the cost of equity, the CAPM model is used, as it is the most robust model to estimate the required risk premium. However, it must be adjusted to reflect the country risk premium that implies additional risks as the firm operates in a developing country, with large country risk.[20]

Zimbabwe does not have publicly traded sovereign debt issued in foreign or local currency. As it is not rated by the official rating agencies, computing the country's sovereign default risk is more complex than for other countries. With little information about the company's debt or rating, the most appropriate way to find the country risk is to find a country with similar economy, politics and risks, which is rated by the official companies. By using a proxy, one can infer the rate and assume the spread to account for the country risk.

Aswath Damoradan divided the various countries in groups, according to their risk level[21]. He uses a model including 22 variables in the political, financial and economic dimensions to calculate the appropriate risk level for each country. Zimbabwe's country risk is 55.3%, which is included in the same group as Mozambique, Nigeria, Uganda, Democratic Republic of Congo, Ethiopia, Malawi, Iraq, Belarus, Haiti, Niger, Tanzania, Yemen and Ukraine.

A useful way to understand if there is any comparable country in the previous group is to get their economic indicators and compare them to Zimbabwe's. Afterwards, one should look

[20] According to Damodaran, Aswath. 2015. "Country Risk: Determinants, Measures and Implications – The 2015 Edition". Stern School of Business, $Re = Rf + \beta * MRP + CRP$. Beta represents the correlation between an industry and the economy and therefore, it does not capture country risk accurately. When computing the cost of equity in a developing country, an adjustment needs to be made in the CAPM Model to account for the additional risk.

[21] Damodaran, Aswath. 2015. "Country Risk: Determinants, Measures and Implications – The 2015 Edition". Stern School of Business

at the countries' politics and assess whether the risks are comparable. Examples of potential indicators are: inflation % change, GDP per Capital, Current Account as % of GDP, Real GDP % change. Furthermore, following Damodaran's model, one can use Corruption and Global Peace Indexes to sustain the conclusions.

By analyzing all the indicators for all the countries with similar levels of risk, one can conclude that Mozambique seems to be the most appropriate proxy as the most relevant indicators are the closest to Zimbabwe's. Gross Debt represented, in July 2015, 58% of Mozambique's GDP and 59% of Zimbabwe's GDP. As for the real GDP, in July 2015 the percentage change was 7.6% in Mozambique and 2.9% in Zimbabwe. When looking at the corruption level and the Global Peace Index, Zimbabwe is the ranked on the 21st position while Mozambique is the 31st most corrupt country in the world. However, despite the fact that Mozambique is a good proxy to Zimbabwe's country risk, additional factors should be considered before making quantitative conclusions.

In July 2015, Moody's rated Mozambique with B1 level. Therefore, one could argue that Zimbabwe's appropriate level could be B1, as Mozambique is an appropriate proxy.

However, if we analyze the politics of the two countries, in Mozambique there is a more democratic environment, with presidents easily rotating, while in Zimbabwe the presidency is under Mr. Robert Mugabe for more than 20 years. Therefore, in a forward looking vision, one might argue that there is an extra risk factor coming from the need to change the presidency and the government when the president dies.

Another worth mentioning point is the lack of transparency in Zimbabwe. It is extremely difficult to find economic information of the country and there is no compatibility between data from different sources. This may represent an additional risk factor that must be taken into consideration when evaluating the appropriate rating. One could argue that a B3 or a Caa1 level is the appropriate rating for the country, as there must be additional protection to account for the lack of transparency and the risk of not being able to change the political system. According to Damodaran's equivalences between rating classes and default spreads, Zimbabwe's sovereign bonds' spread should therefore be between 4.5% and 7.5%.

To find the right value for market risk, one should look at the industry's unlevered beta. Damodaran estimates unlevered betas adjusted for cash for all industries and regions and provides a database in his website[22] with all the information. As Econet operates in the different industries, a reasonable computation would be a weighted average of the unlevered betas of the industries it operates. First of all, one must include the various business units on different industry/sectors. Considering that the airtime and subscriptions and data and SMS business units are telecoms services, interconnect and roaming is part of the telecom (wireless), the financial services are part of the banks and other sales belong to telecom equipment, a weighted average unlevered beta can be computed by weighting each business segment with its % of revenues in the FY2015. The unlevered beta was therefore 1.061. To compute the leveraged beta, assuming $\beta d = 0$, we used the transformation $\beta l = \beta u * \left(1 + \frac{D}{E}\right) * (1 - t)$[23], reaching a value of 1.126.

In Zimbabwe there are no long-term government bonds that are actively traded with sufficient liquidity. As the official currency is the U.S. Dollar, the most appropriate risk-free rate is the 10 Years U.S. Government Bond, 1.993% on the 28th February 2015.

b) Cost of Debt

Econet's cost of debt is very high. As there is no local lender and no local currency in Zimbabwe, Econet's holding company, Econet Wireless Holdings, secures all the financing for

[22] http://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/Betas.html
[23] Debt and Equity are market values

EWZL, but charges a certain interest rate. As Econet's exclusive lender is the parent company of the group, the cost of debt can be easily computed as the effective interest rate on Econet's interest bearing debt. A reasonable assumption for the project period (2016-2020) is that cost of debt will be the average of the interest rate charged by the parent company in the last two years, 13.5%.

c) WACC

Assuming that the capital structure of the firm will stay exactly as it was in the end of the FY2015 (59% Equity Market Value and 41% Debt Market Value), tax rates will be kept at 25.75%, and the firm's cash flows will grow at a 5.5% annual rate forever, one can use the WACC to discount the cash flows of the firm.

Besides the previously mentioned components, with a sovereign bonds' spread of 7.5%, and cost of debt of 13.5%, the appropriate discount rate for Econet's cash flows is 13.0%[24]. See **Exhibit TN1** for WACC's components.

d) Compute Econet's valuation.

a) Valuation

In order to apply the DCF model, some inputs are needed. First of all, revenues must be projected. As Econet has a wide portfolio of diversified businesses, to estimate revenues for the explicit period it was decided to do it for each segment separately, in order to have a more accurate projection. A slight drop in revenues is expected for the period 2015-2019, reflecting the recent trend of decreasing revenues that was observed in the past three years (2013 to 2015). Although the core business' industry is struggling and is not likely to change significantly in the short/medium term, with the diversification of the services, Econet has some areas in which

[24] $WACC = rE * \frac{Equity}{Assets} + rD * \frac{Debt}{Assets} * (1 - t) = (Beta * Spread + Rf) * Equity + (avg\ cost\ of\ debt\ 2010{:}2015) * Debt * (1 - t)$

it could see potential growth both in the short and long term, as **Exhibit TN2** suggests. These trends reflect the restructuring transition that Econet has been going through.

One short-term goal is to keep the gross profit margin constant, therefore, it was assumed to be 67% until 2019, which is the gross profit margin for 2015. Following the cost reduction policy announced by the management team, it is assumed that the company is reducing the costs in a constant pace. Therefore, it will maintain the different cost ratios as % of revenues of the last historical year (**Exhibit TN3**).

As for the depreciation rate, the procedure was to look at historical data in order to find out the rate at which Econet was depreciating its assets. Based on that information, the assets' depreciation rate assumed was 10.9%, corresponding to an average of the post-dollarization period.

Furthermore, the interest payments are computed by multiplying the debt interest rate by the financial debt. As described before, the cost of debt obtained was 13.5%, which was used to calculate interest expenses for the next five years. Finally, the corporate tax rate was assumed to be 25.8%, the tax rate of the FY2015.

For the Net Working Capital components it was assumed that they will maintain the same ratio as % of revenues of 2015. Capex intensity is expected to decrease slightly until 2019, due to the stabilization of the investment. As the firm will focus in debt repayment, it is reasonable to assume that investments will slowdown.

After estimating all the inputs necessary to apply this model, it is possible to calculate the free cash flows and the discount rates. If students have assumed that the debt-to-equity is constant in the future, they can discount the cash flows with the WACC computed in the previous question. However, assuming that the debt-to-equity ratio is not expected to remain constant over time, Econet's valuation cannot be computed using the WACC Method. The most correct method to use is the Adjusted Present Value (APV).

Using the APV means there are two different discount rates, the unlevered cost of capital (14.8%) and the cost of debt (13.5%). The inputs needed to compute the unlevered cost of capital were used to calculate the WACC in the previous question.

After obtaining the appropriate discount rates, the next step is just to perform the valuation in order to find out the fair value of the company's equity. Summing up the two separate blocks – the unlevered part, reflecting the operational side of the business, and the tax shields, corresponding to the financing side – one gets to an Enterprise Value for Econet of $1,256,042,520. Subtracting the Net Debt, which amounts to $359,172,157, the observed fair value of equity is $896,870,363. Finally, by dividing equity value by the number of shares outstanding, the price target is $0.55, which, when compared to the price of the traded shares of $0.51 on the 28th February 2015, means Econet's share was trading at a discount of 6.7 % (**Exhibit TN4**).

b) Scenario Analysis

It would be unrealistic to think that the assumptions made correspond completely to reality. Therefore, it is important to measure the combined impact of a change in either the long term growth rate and the cost of capital. As would be expected, slight changes in the perpetual growth rate and cost of capital have large impacts on the price target, as shown in **Exhibit TN5**. For instance, if one assumes a cost of equity of 15.5% and keeps the growth rate at 5.5%, the conclusion would be that the company was overvalued, rather than undervalued.

e) By looking at comparable firms, if you were a Portfolio Manager looking to invest in African telcos, would you buy Econet's shares?

First of all it is important to identify the comparable firms, since the conclusions depend on that. Econet is included in the African telecommunications sector and thus it makes sense to use as comparable companies the ones considered as part of this sector. In this specific case, the comparable firms are not its competitors in Zimbabwe, as they are smaller players with different focus, but the international competitors offering similar services in other African countries. For that purpose, MTN Group, Vodacom Group, Societe Nationale des Telecommunications du Senegal, Safaricom Limited and Telkom SA are the most appropriate. Even though they operate in different countries with different country risks, and are in different stages of development, they are the companies which can better serve as Econet's comparables. **Exhibit TN6** includes some financial ratios, from which conclusions can be taken on whether it is a good investment or not.

When looking the price to earnings ratio, Econet's P/E for the next 12 months is 7.7x while the average of the industry is 13.7x. The price to book also points out that the company is potentially undervalued.

Furthermore, Econet's EV/EBITDA is below the average (1.95x and 5.87x respectively). As the comparable firms work under the same industries, it should be expectable that they had similar multiples. However, Econet is the only outlier of the group, which can either reinforce the relative low price of Econet, or show the large country risk to which the company is exposed to, as quantified in the country risk premium.

As for the debt-to equity ratio, Econet is in line with the average of the industry, showing that it is not leveraging more than should be expectable, nor does it act as a too conservative company.

Econet's share price has fallen significantly in FY2015 amid deteriorating conditions in the country's economy. This has moved multiples more compelling, representing a discount to the peer multiples (for instance, 70% discount for the EV/EBITDA multiple).

Furthermore, the price at which Econet is currently trading is very close to our target price and according to the scenario analysis, conclusions could change with slight moves in the cost of capital or the growth rates. Therefore, even in the presence of a volatile and unstable market, our recommendation would be to hold Econet's shares. Despite the risks associated with the country, there are some triggers that can increase the price of the stock; the improvement in Zimbabwe, both by changes in leadership or increasing liquid cash in the economy, and EcoCash becoming the *de facto* currency, following what happened in Kenya with Safaricom.

Therefore, as a Portfolio Manager looking to invest in African Telcos, I would hold Econet's shares in my portfolio given the current market conditions.